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EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/779,248	KAPOOR ET AL.	
	Examiner	Art Unit	
	Ian N. Moore	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-17 and 19-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-10,12-17 and 19-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1,2,4-10,12-17,19-30 are rejected by the new ground(s) of rejection necessitated by the amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,2,4,9,10,12,16,17,19,23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde (US006570875B1) in view of Blandy (US005884080A).

Regarding claims 1, Hegde discloses a network node (see FIG. 2, Multiprotocol Switch 40) for collecting network traffic data having one or more processing engines (see FIG. 2, CPU 80) and a memory (see FIG. 2, Shared Memory 90) comprising a set of instructions to:

receive a group of information (see FIG. 2, Input/output ports 50 receive IP packet; see col. 4, lines 34-53, see col. 5, lines 30-50; see FIG. 7, S30 and S32; see col. 8, lines 250 to col. 9, lines 390);

determine whether to process the group of information for network traffic data collection (see FIG. 8, S42, S44; see col. 2, lines 65 to col. 3, lines

9; see col. 9, lines 40-55; note that IP header is extracted and determined if the flow (i.e. source and destination) is in the flow table for updating/creating the new forwarding information in the flow table 70 (also see FIG. 5)),

wherein said determining is performed according to an algorithm (see FIG. 8-9, method/algorithm) that is selected from one of

selecting the group of information based on an examination of traffic attribute data (see FIG. 8, checking/getting/evaluation addresses in the packet header) in the group of information (see col. 9, lines 44-55; see col. 10, lines 35-42);

process the group of information for network traffic data collection if the determination is to process the group of information (see FIG. 9, S72, S94; see col. 3, lines 3-5, see col. 10, lines 36-44, see col. 11, lines 65 to col. 12, lines 5; note that the new forwarding information is created in the flow table when the flow from extracted IP header is not in the flow table; also see FIG. 10 for recording/collecting the entries in the flow table); and

forward the group of information to the destination (see FIG. 8, S46, S50; see col. 3, line 4-10, see col. 10, lines 24-32; note that once the flow is identified and the address is resolved, the IP packet is forwarded according to the designated flow);

Hegde does not explicitly disclose a burst sampling. However, Blandy teaches determining is performed according to a sampling algorithm (see FIG. 2 and 3, sampling method) that is selected from one of a burst sampling

algorithm (see col. 2, lines 64-66; see col. 3, lines 12-19; col. 4, lines 26-50; sampling burst method); and

selecting the group of information based on an examination of traffic attribute data in the group of information (see FIG. 2, 33-39; see FIG. 3, 41-58; see col. 4, lines 30 to col. 6, lines 26; setting/allocating data according to time/count of traffic data). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a burst sampling algorithm, as taught by Blandy in the system of Hegde, so that it would provide a performance system monitor system performance with minimal changes to the operating system and no changes to application code; also it would provides mechanism for monitoring system performance by sampling in a burst mode, rather than once per interrupt; see Blandy col. 2, line 55 to col. 3, lines 10.

Regarding claim 2, Hegde'875 discloses wherein the group of information is an IP packet (see FIG. 2, IP packet; see col. 4, lines 34-53, see FIG. 7, S32; IP packet see col. 8, lines 250 to col. 9, lines 390; see col. 5, lines 30-50).

Regarding claim 4, the combined system of Hegde'875 and Blandy discloses wherein forwarding the group of information to the destination as described in claim 1.

Hegde'875 further discloses identifying the destination (see FIG. 8, S44, an entry of a flow) using a forwarding table (see FIG. 2 and FIG. 5, Flow Table 70; see col. 2, lines 65 to col. 3, lines 9; see col. 9, lines 40-55; note

that IP header is extracted and determined if the flow entry is in the flow table);

if the destination is in the forwarding table (see FIG. 8, S46; the entries in the flow table is Yes), automatically forwarding the group of information to the destination (see FIG. 8, S46; note that the packet is forwarded according to a flow in the flow table at wire speed; see col. 3, lines 6-7; col. 9, lines 50-55) and

otherwise sending the group of information to one or more processing engines to determine routing to the destination (see FIG. 8, S56; Forwarded to CPU for processing; col. 3, lines 2-6; note that when there is no entry of a flow in the flow table, the packet is forwarded to CPU to be processed. See FIG. 9, S88, S90, S94; the CPU determines and creates/updates the table with new forwarding information; see FIG. 9, S72, S94; see col. 3, lines 3-5,see col. 10, lines 36-44, see col. 11, lines 65 to col. 12, lines 5) and

forwarding the group of information according to the determined routing (see FIG. 8, S46, S50; see col. 3, line 4-10, see col. 10, lines 24-32; note that once the flow is identified and the address is resolved, the IP packet is forwarded according to the created/updated designated flow).

Regarding claim 5, Hegde'875 discloses wherein forwarding the group of information to the destination (see FIG. 8, S46; forwarding packet according to the flow table) is performed after processing the group of information (see FIG. 8, S40, S42 and S44; getting, checking and determining the IP packet for a flow; see col. 9, lines 44-49; note that forwarding IP packet

according to the designated step is executed after the step of processing IP packet for a flow information is performed).

Regarding Claim 9, an apparatus claim which that substantially discloses all the limitations of the respective method claim 1. Therefore, it is subjected to the same rejection.

Regarding Claim 10, claim which that substantially discloses all the limitations of the respective claim 2. Therefore, it is subjected to the same rejection.

Regarding Claim 12, claim which that substantially discloses all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding Claim 16, a network node claim which that substantially discloses all the limitations of the respective method claim 1. Therefore, it is subjected to the same rejection.

Regarding Claim 17, claim which that substantially discloses all the limitations of the respective claim 2. Therefore, it is subjected to the same rejection.

Regarding Claim 19, claim which that substantially discloses all the limitations of the respective claim 4. Therefore, it is subjected to the same rejection.

Regarding claim 23, Hegde'875 discloses an apparatus (see FIG. 2, Multiprotocol Switch 40) for collecting network traffic data comprising:

one or more switch fabrics (see FIG. 2, Switch Module 60) ;

one or more destination line cards (see FIG. 1 and 2, transmitting ports of the Input/output ports 50-1...50-N which interface with network nodes, also each port must be on the card) coupled to the one or more switch fabrics (see FIG. 2, Input/output ports 50 is connected to Switch Module 60; see col. 4, lines 34-53);

a source line card (see FIG. 1 and 2, receiving ports of the Input/output ports 50-1...50-N which interface with network nodes, also each port must be on the card) coupled to the one of the one or more switch fabrics (see FIG. 2, Input/output ports 50 is connected to Switch Module 60; see col. 4, lines 34-53) wherein

the source line card receive a data packet (see FIG. 2, receiving ports of Input/output ports 50 receive IP packet; see col. 4, lines 34-53, see FIG. 7, S30 and S32; see col. 8, lines 250 to col. 9, lines 390);

a router processor (see FIG. 2, CPU 80), couple to switch fabric (see FIG. 2, Switch Module 60), and configured to

determine whether to process the data packet for network traffic data collection according to an algorithm (see FIG. 8-9, method/algorithm; see FIG. 8, S42, S44; see col. 2, lines 65 to col. 3, lines 9; see col. 9, lines 40-55; note that IP header is extracted and determined if the flow (i.e. source and destination) is in the flow table for updating/creating the new forwarding information in the flow table 70 (also see FIG. 5));

process the data packet for network traffic data collection if the determination is to process the data packet (see FIG. 9, S72, S94; see col. 3,

lines 3-5,see col. 10, lines 36-44, see col. 11, lines 65 to col. 12, lines 5; note that the new forwarding information is created in the flow table when the flow from extracted IP header is not in the flow table; also see FIG. 10 for recording/collecting the entries in the flow table); and

forward the data packet to one of the one or more destination line cards (see FIG. 8, S46, S50; see col. 3, line 4-10, see col. 10, lines 24-32; note that once the flow is identified and the address is resolved, the IP packet is forwarded to the destination, thereby forwarding to output port 50).

Hegde does not explicitly disclose a sampling. However, Blandy teaches determining is performed according to a sampling algorithm (see FIG. 2 and 3; col. 2, lines 64-66; see col. 3, lines 12-19; col. 4, lines 26-50; sampling burst method).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a burst sampling algorithm, as taught by Blandy in the system of Hegde, so that it would provide a performance system monitor system performance with minimal changes to the operating system and no changes to application code; also it would provides mechanism for monitoring system performance by sampling in a burst mode, rather than once per interrupt; see Blandy col. 2, line 55 to col. 3, lines 10.

Regarding Claim 24, claim which that substantially discloses all the limitations of the respective claim 2. Therefore, it is subjected to the same rejection.

Regarding claim 25, the combined system of Hegde and Blandy discloses all the limitations. Hegde discloses an algorithm (see FIG. 8-9, method/algorithm) that is selected from one of

selecting the data packet based on an examination of traffic attribute data (see FIG. 8, checking/getting/evaluation addresses in the packet header) in the data packet (see col. 9, lines 44-55; see col. 10, lines 35-42).

Blandy teaches determining is performed according to a sampling algorithm (see FIG. 2 and 3, sampling method) that is selected from one of a burst sampling algorithm (see col. 2, lines 64-66; see col. 3, lines 12-19; col. 4, lines 26-50; sampling burst method); and

selecting the data packet based on an examination of traffic attribute data in the data packet (see FIG. 2, 33-39; see FIG. 3, 41-58; see col. 4, lines 30 to col. 6, lines 26; setting/allocating data according to time/count of traffic data). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a burst sampling algorithm, as taught by Blandy in the system of Hegde, for the same motivation as stated above in claim 1.

4. Claim 6, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde'875 and Blandy, as applied to claims 1,9 and 16 above, and further in view of Dietz (U.S. 6,651,099).

Regarding claim 6, Hegde'875 discloses determining if the group of information is part of one or more recorded traffic flows (see FIG. 8, S42, S44;

see col. 2, lines 65 to col. 3, lines 9; see col. 9, lines 40-55; note that IP header is extracted and determined if the traffic flow is in the flow table);

creating a new entry in a table if the group of information is not part of the one or more recorded traffic flows (see FIG. 8, S56; Forwarded to CPU for processing; col. 3, lines 2-6; note that when there is no entry of a flow in the flow table, the packet is forwarded to CPU to be processed. See FIG. 9, S88, S90, S94; the CPU updates the table with a new traffic flow; see FIG. 9, S72, S94; see col. 3, lines 3-5,see col. 10, lines 36-44, see col. 11, lines 65 to col. 12, lines 5);

forwarding if the group of information is part of the one or more recorded traffic flows (see FIG. 8, S46, S50; see FIG. 12, S176; see col. 3, line 4-10, see col. 10, lines 24-32; note that once the flow is identified and the address is resolved, the IP packet is forwarded according to the created/updated designated flow).

Neither Hegde'875 nor Blandy explicitly disclose incrementing a field in an existing entry in the table; and time stamping the group of information.

However, the above-mentioned claimed limitations are taught by Dietz'099. In particular, Dietz'099 teaches incrementing a field (see col. 24, lines 55-56, see col. 14, lines 54-56; a packet count in the counters, and note that when counting, the data must be incremented) in an existing entry in the table (see FIG. 3, Flow entry database) if the group of information is part of the one or more recorded traffic flows (see FIG. 3, steps 316 and 322; see col. 14, lines 3-35, 48-57; see col. 24, lines 50-59; note that when the packet

is found to have a match flow-entry in the database 324, the calculator enters the measured statistical data in the flow-entry); and

time stamping the group of information (see col. 20, line 40-65; note that the time stamps are generated, collected, and analyzed for each packet of the flow).

In view of this, having the combined system of Hegde'875 and Blandy, then given the teaching of Dietz'099, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875 and Blandy, for the purpose of providing a mechanism of collecting traffic flows in the flow-entry database by utilizing counters, and time stamping the packet, as taught by Dietz'099, since Dietz'099 states the advantages/benefits at col. 4, lines 40 to col. 5, lines 10 that it would recognize and classify all flows that pass either direction of the network and tune the performance of the network. The motivation being that by collection the traffic flow information, it enhance the performance of the network since the resources are being monitored and occurrences of specific sequences of packets are being reported.

Regarding Claim 13, claim which that substantially discloses all the limitations of the respective claim 6. Therefore, it is subjected to the same rejection.

Regarding Claim 20, claim which that substantially discloses all the limitations of the respective claim 6. Therefore, it is subjected to the same rejection.

5. Claim 7,8,14,15,21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde'875, Blandy and Dietz'099, as applied to claim 6,13, and 20 above, and further in view of Takase (U.S. 5,822,535).

Regarding claim 7, the combined system of Hegde'875, Blandy and Dietz'099 discloses the processing of the group of information for network traffic data collection as described above in claims 1 and 6. Hegde further discloses a network traffic data collection application (see FIG. 2, Flow Table 70). Dietz'099 also discloses a network traffic data collection application (see FIG. 11, Lookup/update Engine LUE 1107).

Neither Hegde'875, Blandy nor Dietz'099 explicitly disclose creating a traffic information packet; and transmitting the traffic information packet.

However, the above-mentioned claimed limitations are taught by Takase'535. In particular, Takase'535 teaches creating a traffic information packet (see FIG. 17B, Response Packet; see col. 2, lines 55-61; see col. 20, lines 5-30; see FIG. 7, Steps S5-S7; note that upon receiving the call/request packet 401 from the management node 100, the managed node 301 creates a response packet after collecting and accumulating according to the inquiry); and

transmitting the traffic information packet to a network traffic data collection application (see FIG. 2, software application Management system 400 of the Management node 100; see FIG. 7, S8; the response packet is

transmitted to the software application management system 400; see col. 7, lines 50 to col. 9, lines 6).

In view of this, having the combined system of Hegde'875, Blandy and Dietz'099, then given the teaching of Takase'535, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875, Blandy and Takase'535, for the purpose of providing a mechanism of transmitting a collected response packet to the collection management application system upon inquiry, as taught by Takase'535, since Takase'535 states the advantages/benefits at col. 2, lines 45 to col. 3, lines 40 that it would reduce the amount of traffic flow in the network by preventing concentration of network load. The motivation being that by transmitting collected response packet only upon request to the management software application, it can reduce the network congestion since the collected packet is transmitted only upon request.

Regarding claim 8, Takase'535 discloses wherein the traffic information packet comprises a header (see FIG. 17B, Protocol Header 171) and one or more flow records (see FIG. 17B, Attribute Value); see col. 20, lines 5-42.

In view of this, having the combined system of Hegde'875, Blandy and Dietz'099, then given the teaching of Takase'535, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875, Blandy and Takase'535, for same purpose as described above in claim 7.

Regarding Claim 14, claim which that substantially discloses all the limitations of the respective claim 7. Therefore, it is subjected to the same rejection.

Regarding Claim 15, claim which that substantially discloses all the limitations of the respective claim 8. Therefore, it is subjected to the same rejection.

Regarding Claim 21, claim which that substantially discloses all the limitations of the respective claim 7. Therefore, it is subjected to the same rejection.

Regarding Claim 22, claim which that substantially discloses all the limitations of the respective claim 8. Therefore, it is subjected to the same rejection.

6. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde in view of Blandy as described above in claim 23, and further in view of Hebb (U.S. 6,463,067).

Regarding Claim 26, the combined system of Hegde and Blandy discloses all aspect of the claim as described above in claim 4, and Hegde discloses a source line card and forwarding the data packet.

Neither Hegde nor Blandy explicitly discloses the source line card is performing processing of packet data (see FIG. 2, Forwarding Engine 22) is located on the source line card (see FIG. 2, a line interface unit PHY 1/O and

Framing 20 unit; note that Forwarding Engine 22 within interface card 20; col. 3, lines 55-60).

In view of this, having the combined system of Hegde and Blandy, then given the teaching of Hebb, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde and Blandy, for the purpose of providing processing packets within input line interface unit and sending the processed data to outgoing line interface unit, as taught by Hebb, since Hebb states the advantages/benefits at col. 2, lines 25-54 that it would enhance the efficiency and speed of the communication between the packet process and the forwarding engine, and allowing for high-speed packet forwarding and classification. The motivation being that by processing the packet at the incoming port and forwarding to the switch fabric and the outgoing port, it can increase the performance of the network and enhance the packet classification since the packet is proceed at incoming port before traversing the router.

Regarding claim 27, Hebb discloses wherein the one or more processing engines (see FIG. 2, Forwarding Engine 22) is located on the source line card (see FIG. 2, a line interface unit PHY 1/O and Framing 20 unit; note that Forwarding Engine 22 within interface card 20; col. 3, lines 55-60).

In view of this, having the combined system of Hegde and Blandy, then given the teaching of Hebb, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify the combined system of Hegde and Blandy, for the purpose of providing processing packets within input line interface unit and sending the processed data to outgoing line interface unit, as taught by Hebb, for the same motivation as stated above in claim 26.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde'875, Blandy and Hebb'067, as applied to claim 23 above, and further in view of Dietz (U.S. 6,651,099).

Regarding claim 28, Hegde discloses determining if the data packet is part of one or more recorded traffic flows (see FIG. 8, S42, S44; see col. 2, lines 65 to col. 3, lines 9; see col. 9, lines 40-55; note that IP header is extracted and determined if the traffic flow is in the flow table);

creating a new entry in a table if the group of information is not part of the one or more recorded traffic flows (see FIG. 8, S56; Forwarded to CPU for processing; col. 3, lines 2-6; note that when there is no entry of a flow in the flow table, the packet is forwarded to CPU to be processed. See FIG. 9, S88, S90, S94; the CPU updates the table with a new traffic flow; see FIG. 9, S72, S94; see col. 3, lines 3-5,see col. 10, lines 36-44, see col. 11, lines 65 to col. 12, lines 5);

forwarding if the group of information is part of the one or more recorded traffic flows (see FIG. 8, S46, S50; see FIG. 12, S176; see col. 3, line 4-10, see col. 10, lines 24-32; note that once the flow is identified and the

address is resolved, the IP packet is forwarded according to the created/updated designated flow).

Neither Hegde nor Blandy explicitly discloses the source line card is performing processing of packet data (see FIG. 2, Forwarding Engine 22) is located on the source line card (see FIG. 2, a line interface unit PHY 1/O and Framing 20 unit; note that Forwarding Engine 22 within interface card 20; col. 3, lines 55-60).

In view of this, having the combined system of Hegde and Blandy, then given the teaching of Hebb, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde and Blandy, for the purpose of providing processing packets within input line interface unit and sending the processed data to outgoing line interface unit, as taught by Hebb, since Hebb states the advantages/benefits at col. 2, lines 25-54 that it would enhance the efficiency and speed of the communication between the packet process and the forwarding engine, and allowing for high-speed packet forwarding and classification. The motivation being that by processing the packet at the incoming port and forwarding to the switch fabric and the outgoing port, it can increase the performance of the network and enhance the packet classification since the packet is proceed at incoming port before traversing the router.

Neither Hegde'875, Blandy nor Hebb explicitly disclose incrementing a field in an existing entry in the table; and time stamping the group of information.

However, the above-mentioned claimed limitations are taught by Dietz'099. In particular, Dietz'099 teaches incrementing a field (see col. 24, lines 55-56, see col. 14, lines 54-56; a packet count in the counters, and note that when counting, the data must be incremented) in an existing entry in the table (see FIG. 3, Flow entry database) if the group of information is part of the one or more recorded traffic flows (see FIG. 3, steps 316 and 322; see col. 14, lines 3-35, 48-57; see col. 24, lines 50-59; note that when the packet is found to have a match flow-entry in the database 324, the calculator enters the measured statistical data in the flow-entry); and

time stamping the group of information (see col. 20, line 40-65; note that the time stamps are generated, collected, and analyzed for each packet of the flow).

In view of this, having the combined system of Hegde'875, Blandy, Hebb then given the teaching of Dietz'099, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875, Blandy and Hebb, for the purpose of providing a mechanism of collecting traffic flows in the flow-entry database by utilizing counters, and time stamping the packet, as taught by Dietz'099, since Dietz'099 states the advantages/benefits at col. 4, lines 40 to col. 5, lines 10 that it would recognize and classify all flows that pass either direction of the

network and tune the performance of the network. The motivation being that by collection the traffic flow information, it enhance the performance of the network since the resources are being monitored and occurrences of specific sequences of packets are being reported.

8. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde'875, Blandy, Hebb, and Dietz'099, as applied to claim 28 above, and further in view of Takase (U.S. 5,822,535).

Regarding claim 29, the combined system of Hegde'875, Blandy, Hebb'067 and Dietz'099 discloses the processing of the group of information for network traffic data collection as described above in claims 1 and 6. Hegde'875 further discloses a network traffic data collection application (see FIG. 2, Flow Table 70). Dietz'099 also discloses a network traffic data collection application (see FIG. 11, Lookup/update Engine LUE 1107).

Neither Hegde'875, Blandy, Hebb'067, nor Dietz'099 explicitly disclose creating a traffic information packet; and transmitting the traffic information packet.

However, the above-mentioned claimed limitations are taught by Takase'535. In particular, Takase'535 teaches creating a traffic information packet (see FIG. 17B, Response Packet; see col. 2, lines 55-61; see col. 20, lines 5-30; see FIG. 7, Steps S5-S7; note that upon receiving the call/request packet 401 from the management node 100, the managed node 301 creates

a response packet after collecting and accumulating according to the inquiry); and

transmitting the traffic information packet to a network traffic data collection application (see FIG. 2, software application Management system 400 of the Management node 100; see FIG. 7, S8; the response packet is transmitted to the software application management system 400; see col. 7, lines 50 to col. 9, lines 6).

In view of this, having the combined system of Hegde'875, Blandy, Hebb'067 and Dietz'099, then given the teaching of Takase'535, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875, Blandy, Hebb'067 and Dietz'099, for the purpose of providing a mechanism of transmitting a collected response packet to the collection management application system upon inquiry, as taught by Takase'535, since Takase'535 states the advantages/benefits at col. 2, lines 45 to col. 3, lines 40 that it would reduce the amount of traffic flow in the network by preventing concentration of network load. The motivation being that by transmitting collected response packet only upon request to the management software application, it can reduce the network congestion since the collected packet is transmitted only upon request.

Regarding claim 30, Takase'535 discloses wherein the traffic information packet comprises a header (see FIG. 17B, Protocol Header 171)

and one or more flow records (see FIG. 17B, Attribute Value); see col. 20, lines 5-42.

In view of this, having the combined system of Hegde'875, Blandy, Hebb'067 and Dietz'099, then given the teaching of Takase'535, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Hegde'875, Blandy, Hebb'067 and Dietz'099, for same motivation as described above in claim 29.

Response to Arguments

9. Applicant's arguments with respect to claims 1,2,4-10,12-17,19-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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INM

6/2/05

BOB PHUNKULH
PRIMARY EXAMINER